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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/699,910 | 11/03/2003 | Robert Young Seward | 200300464-1 | 4391 |

22879 7590 12/19/2006

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| EXAMINER |
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KIK, PHALLAKA

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| ART UNIT | PAPER NUMBER |
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2825

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS | 12/19/2006 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/699,910

Applicant(s)

SEWARD, ROBERT YOUNG

Examiner

Phallaka Kik

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action responds to the Application filed on 11/3/2003. Claims 1-29 are pending.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: the inventor's signature and date is partially cut-off at the bottom of the page.

Claim Objections

3. **Claims 1-17,25-27** are objected to because of the following informalities:

As per **claims 1,17**, "the size" (lines 16 and 18 respectively) should be --a size-- for proper antecedent basis.

As per **claim 12**, "the same port" (lines 2-3) should be --a same port-- for proper antecedent basis.

As per **claim13**, "the corner" (line 4) should be --a corner-- for proper antecedent basis; --of the design-- should be inserted after "corner" (line 6) to clearly reference to the "corner of the design" and not the "corner case of pins"; "the greatest" (line 8) should be --a greatest-- for proper antecedent basis.

As per **claim 14**, "the second" (line 4) should be --a second-- for proper antecedent basis; "the greatest" (line 8) should be --a greatest-- for proper antecedent basis.

As per **claim 16**, "the minimal" (line 1) should be --a minimal-- for proper antecedent basis.

As per **claims 2-16**, the claims are also objected to for incorporating the above errors into the respective claims by claim dependency.

As per **claim 25**, --further-- should be inserted before "configured" (line 1) to further define the further limitations.

As per **claims 26**, the claim is objected to for incorporating the above into the claim by claim dependency.

As per **claim 27**, "the minimal" (line 1) should be --a minimal-- for proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. **Claims 1-29** are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility, wherein the claims are directed to abstract ideas or mathematical algorithm without having practical application (i.e., the reduced bounding is not use for anything; that is, no step/means for routing and/or placing the cells using the reduced bounding box). (See Warmerdam, 33 F. 3d at 1360, 31 USPQ2d at 1759; in Re. AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. **Claims 18,20-24,27-29** are rejected under 35 U.S.C. 102(e) as being anticipated by **Teig et al.**(US Patent Application Publication No. 2006/0206848).

As per **claims 18,22-24,27**, the initial bounding box being produced is described in paragraph [0082] based on the VLSI design or IC layout of cells with nets having pins (see also paragraph [0080]), from which the reduced bounding box is computed, as further described in paragraphs [0083]-[0089], resulting in a minimal or minimum bounding box, wherein the system, the memory, the computer-readable medium storing processor executable instructions are part of the EDA (Electronic Design Automation) applications using computer-based tools as described in paragraphs [0003]-[0008] and [0207]-[0213].

As per **claims 20**, all of the elements of claim 18, from which the claim depends are discussed in the rejection of claim 18 above, wherein the displaying of the bounding box is further described in paragraph [0212] as part of the display of the IC design layouts for which the generated bounding box is part of.

As per **claim 21**, all of the elements of claim 18, from which the claim depends are discussed in the rejection of claim 18 above, wherein the selectively generating a signal associated with the reduced bounding box could be any value or signals being used to communicate among the software modules when the reduced bounding box is produced, such as a return value of the wirelength cost variable (WL_COST) (paragraph [0087], or the particular coordinates of the reduced bounding box (see paragraph [0085].

As per **claims 28-29**, all of the elements of the claims are discussed in the rejection of claims 18,24 above, wherein since the selected pins are associated with the corners of the bounding box from which bounding box is redefined or moved to the particular coordinates of the corner pins (i.e., maximum x and y coordinates of the bounding box--see paragraphs [002]-[0086], [0073]-[0074]), such identifying of the corner pins to be included or excluded are performed in order to keep track of the bounding box and the pins belonging to the bounding box.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Therefore, Applicant is requested herein to consider them carefully in response to this Office Action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phallaka Kik whose telephone number is 571-272-1895. The examiner can normally be reached on Monday-Friday, 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on 571-272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

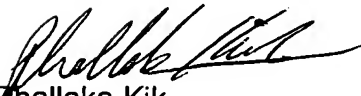
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

or faxed to:

571-273-8300


Phallaka Kik
Primary Examiner
December 10, 2006